

10/777140

Refine Search

Search Results -

Terms	Documents
L33 not L35	12

Database:

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 US Patents Full-Text Database
 US OCR Full-Text Database
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 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L36

Refine Search

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Search History

 DATE: Friday, February 18, 2005 [Printable Copy](#) [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
	<i>DB=EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR</i>		
<u>L36</u>	L33 not L35	12	<u>L36</u>
<u>L35</u>	L33 and gear\$	3	<u>L35</u>
<u>L34</u>	L33 and (modif\$ with fuel\$)	0	<u>L34</u>
<u>L33</u>	((fuel\$ with limit\$) with speed\$) and ((curve or graph\$) with speed\$)	15	<u>L33</u>
	<i>DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>		
<u>L32</u>	L31 and (fuel\$ with supply\$)	7	<u>L32</u>
<u>L31</u>	L29 and gear\$	15	<u>L31</u>
<u>L30</u>	L29 and 701/? ccls.	0	<u>L30</u>
<u>L29</u>	L23 and (rack\$ near2 position\$)	24	<u>L29</u>
<u>L28</u>	L24 and (modif\$ with fuel\$)	2	<u>L28</u>
<u>L27</u>	L24 and gear\$	3	<u>L27</u>
<u>L26</u>	L25 and gear\$	0	<u>L26</u>
<u>L25</u>	L24 and rack\$	0	<u>L25</u>

<u>L24</u>	L23 and 701/?ccls.	5	<u>L24</u>
<u>L23</u>	((fuel\$ with limit\$) with speed\$) and ((curve or graph\$) with speed\$) and @ad<=20030214 <i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	777	<u>L23</u>
<u>L22</u>	L21 and 701/?ccls.	0	<u>L22</u>
<u>L21</u>	("rack position" with "fuel supply") and vehicle <i>DB=EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	5	<u>L21</u>
<u>L20</u>	L19 and (offset\$ with voltage)	6	<u>L20</u>
<u>L19</u>	(electric\$ with power\$ with steer\$) and (current with (monitor\$ or detect\$)) <i>DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	872	<u>L19</u>
<u>L18</u>	L17 and 701/41.ccls.	2	<u>L18</u>
<u>L17</u>	(cpu same (lock\$ with (high\$ or low\$))) and vehicle and @ad<=20030827	112	<u>L17</u>
<u>L16</u>	L2 and (cpu with (calculat\$ or output\$) with level\$)	3	<u>L16</u>
<u>L15</u>	L2 and (cpu with lock\$ with level\$)	0	<u>L15</u>
<u>L14</u>	L2 and (cpu with lock\$ with off\$)	0	<u>L14</u>
<u>L13</u>	L2 and (cpu with lock\$ with high\$)	0	<u>L13</u>
<u>L12</u>	L2 and (cpu with lock\$ with low\$)	0	<u>L12</u>
<u>L11</u>	L2 and (cpu with lock\$)	3	<u>L11</u>
<u>L10</u>	L5 and ((compar\$ or match\$) with current)	1	<u>L10</u>
<u>L9</u>	L5 and (compar\$ or match\$)	3	<u>L9</u>
<u>L8</u>	L5 and (cpu with (disabl\$ or free\$ or frozen\$ or lock\$)) <i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	0	<u>L8</u>
<u>L7</u>	L5 and (cpu with lock\$) <i>DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	0	<u>L7</u>
<u>L6</u>	L5 and ((threshold\$ or referenc\$) with (value or number))	3	<u>L6</u>
<u>L5</u>	L3 and (motor\$ with current) <i>DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=OR</i>	3	<u>L5</u>
<u>L4</u>	L3 and 701/41.ccls.	1	<u>L4</u>
<u>L3</u>	L2 and ((offset or "off-set") near2 voltage)	3	<u>L3</u>
<u>L2</u>	L1 and @ad<=20030827	20	<u>L2</u>
<u>L1</u>	(electric\$ with power\$ with steer\$) and (main near2 (cpu or process\$)) and (sub\$ near2 (cpu or process\$)) and (current with (monitor\$ or detect\$))	20	<u>L1</u>

END OF SEARCH HISTORY

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☐ 1. Document ID: US 4601270 A

Using default format because multiple data bases are involved.

L32: Entry 1 of 7

File: USPT

Jul 22, 1986

US-PAT-NO: 4601270

DOCUMENT-IDENTIFIER: US 4601270 A

TITLE: Method and apparatus for torque control of an internal combustion engine as a function of exhaust smoke level

DATE-ISSUED: July 22, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kimberley; John A.	East Granby	CT		
Bullis; Robert H.	Avon	CT		

US-CL-CURRENT: 123/357; 123/494

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	INDEX	Draw. De
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☐ 2. Document ID: US 4502437 A

L32: Entry 2 of 7

File: USPT

Mar 5, 1985

US-PAT-NO: 4502437

DOCUMENT-IDENTIFIER: US 4502437 A

TITLE: Electrical fuel control system and method for diesel engines

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	INDEX	Draw. De
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☐ 3. Document ID: US 4493617 A

L32: Entry 3 of 7

File: USPT

Jan 15, 1985

US-PAT-NO: 4493617

DOCUMENT-IDENTIFIER: US 4493617 A

TITLE: Fuel injection pump with plunger stroke control

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
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☐ 4. Document ID: US 4493303 A

L32: Entry 4 of 7

File: USPT

Jan 15, 1985

US-PAT-NO: 4493303

DOCUMENT-IDENTIFIER: US 4493303 A

TITLE: Engine control

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	----------

☐ 5. Document ID: US 4461151 A

L32: Entry 5 of 7

File: USPT

Jul 24, 1984

US-PAT-NO: 4461151

DOCUMENT-IDENTIFIER: US 4461151 A

TITLE: Internal combustion engine

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	----------

☐ 6. Document ID: US 4368705 A

L32: Entry 6 of 7

File: USPT

Jan 18, 1983

US-PAT-NO: 4368705

DOCUMENT-IDENTIFIER: US 4368705 A

**** See image for Certificate of Correction ****

TITLE: Engine control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	----------

☐ 7. Document ID: US 3786792 A

L32: Entry 7 of 7

File: USPT

Jan 22, 1974

US-PAT-NO: 3786792

DOCUMENT-IDENTIFIER: US 3786792 A

**** See image for Certificate of Correction ****

TITLE: VARIABLE VALVE TIMING SYSTEM

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L31 and (fuel\$ with supply\$)	7

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 6616575 B1

Using default format because multiple data bases are involved.

L35: Entry 1 of 3

File: DWPI

Sep 9, 2003

DERWENT-ACC-NO: 2003-743356

DERWENT-WEEK: 200370

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TITLE: Drive line assembly for work machine, has controller that stores a predetermined maximum efficiency curve of engine versus torque output and determines engine speed from engine speed signals from engine speed sensor

INVENTOR: LORENTZ, T A

PRIORITY-DATA: 1999US-0429845 (October 29, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6616575 B1	September 9, 2003		008	B60K041/04

INT-CL (IPC): B60 K 41/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De

☐ 2. Document ID: DE 59609866 G, DE 19540061 C1, EP 771943 A2, BR 9605335 A, US 5819705 A, EP 771943 B1

L35: Entry 2 of 3

File: DWPI

Dec 19, 2002

DERWENT-ACC-NO: 1996-434750

DERWENT-WEEK: 200302

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TITLE: Controlling motor vehicle diesel engine with fuel injection amount limited - according to power limit curve and smoke curve so that depending on gear change step and/or vehicle speed normal operating or start smoke curve is used

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De

☐ 3. Document ID: WO 9001115 A, AU 8934439 A, CA 1297180 C, DE 3876807 G, EP 381710 A, EP 381710 B1, US 4914597 A

L35: Entry 3 of 3

File: DWPI

Feb 8, 1990

DERWENT-ACC-NO: 1990-067206

DERWENT-WEEK: 199009

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TITLE: Vehicle engine cruise control with variable power limits - stores sets of data representing different fuel delivery limit curves as function of engine speed

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Summary	Claims	FIGS	Drawings
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L33 and gear\$	3

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Search Results - Record(s) 1 through 10 of 12 returned.

- ☐ 1. Document ID: JP 02149746 A

Using default format because multiple data bases are involved.

L36: Entry 1 of 12

File: JPAB

Jun 8, 1990

PUB-NO: JP402149746A

DOCUMENT-IDENTIFIER: JP 02149746 A

TITLE: DIESEL ENGINE FUEL INJECTION TIMING CONTROLLER MOUNTED ON WORK VEHICLE

PUBN-DATE: June 8, 1990

INVENTOR-INFORMATION:

NAME

COUNTRY

MAEDA, MASAMI

SEKINO, HIROBUMI

US-CL-CURRENT: 123/486

INT-CL (IPC): F02D 41/40; F02D 41/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Abstract	Claims	INWC	Draw. De
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- ☐ 2. Document ID: DE 4128728 A1

L36: Entry 2 of 12

File: EPAB

Mar 4, 1993

PUB-NO: DE004128728A1

DOCUMENT-IDENTIFIER: DE 4128728 A1

TITLE: Vehicular skid prevention device using centrifugal force measurement - restricts speed by redn. of traction in response to excessively fast entry into curve or corner

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Abstract	Claims	INWC	Draw. De
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- ☐ 3. Document ID: EP 221386 A2

L36: Entry 3 of 12

File: EPAB

May 13, 1987

PUB-NO: EP000221386A2

DOCUMENT-IDENTIFIER: EP 221386 A2

TITLE: Method and device for adapting the mixture control in an internal-combustion engine.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
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☐ 4. Document ID: DE 3327370 A1

L36: Entry 4 of 12

File: EPAB

Feb 14, 1985

PUB-NO: DE003327370A1

DOCUMENT-IDENTIFIER: DE 3327370 A1

TITLE: Fuel injection pump for supercharged diesel internal combustion engines, especially distributor injection pump

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
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☐ 5. Document ID: BR 200300028 A, JP 2003206779 A, CN 1431392 A

L36: Entry 5 of 12

File: DWPI

Sep 9, 2003

DERWENT-ACC-NO: 2003-640226

DERWENT-WEEK: 200369

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TITLE: Speed limiting device for vehicle, makes air fuel ratio lean and performs ignition control, when speed limit reaches lower and higher speed threshold values, respectively

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-------

☐ 6. Document ID: US 6283102 B1

L36: Entry 6 of 12

File: DWPI

Sep 4, 2001

DERWENT-ACC-NO: 2002-194500

DERWENT-WEEK: 200225

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TITLE: High drive ability index fuel identification method for use in motor vehicle engine, involves measuring elapsed time required for engine rotational speed to increase from predetermined low limit to predetermined high limit

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-------

☐ 7. Document ID: JP 2001107788 A

L36: Entry 7 of 12

File: DWPI

Apr 17, 2001

DERWENT-ACC-NO: 2001-364272

DERWENT-WEEK: 200138

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TITLE: Fuel cut-off control device for IC engine for vehicles, performs repeated

cut-off and reset until parameters of engine speed/vehicle speed correlated with temperature of catalyst converter reduces to preset level

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw De
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☐ 8. Document ID: DE 4128728 A1

L36: Entry 8 of 12

File: DWPI

Mar 4, 1993

DERWENT-ACC-NO: 1993-077583

DERWENT-WEEK: 199310

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TITLE: Vehicular skid prevention device using centrifugal force measurement - restricts speed by redn. of traction in response to excessively fast entry into curve or corner

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw De
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☐ 9. Document ID: DE 3906083 A, DE 3906083 C, DE 59000383 G, EP 385969 A, EP 385969 B1, ES 2036112 T3

L36: Entry 9 of 12

File: DWPI

Aug 30, 1990

DERWENT-ACC-NO: 1990-268823

DERWENT-WEEK: 199036

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TITLE: Vehicle diesel engine control unit - has base regulator which is supplied signals from transmitters and sensors to detect operating parameters and adjust fuel supply

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw De
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☐ 10. Document ID: DE 3911145 C, EP 391062 A, EP 391062 B1, US 5086739 A

L36: Entry 10 of 12

File: DWPI

Apr 26, 1990

DERWENT-ACC-NO: 1990-125720

DERWENT-WEEK: 199017

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TITLE: Electronic RPM regulator for Diesel engine - has electronic control unit forming regulating path from detected working valves and stored threshold valves

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw De
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Search Results - Record(s) 11 through 12 of 12 returned.

☐ 11. Document ID: EP 339003 A, DE 68901682 E, EP 339003 B1, SE 8801443 A, US 5006994 A

Using default format because multiple data bases are involved.

L36: Entry 11 of 12

File: DWPI

Oct 25, 1989

DERWENT-ACC-NO: 1989-311425

DERWENT-WEEK: 198943

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TITLE: Specific fuel consumption determining method for IC engine - measuring change in weight of pot containing fuel during specified time

INVENTOR: ANDERSSON, K; ERIKSSON, L

PRIORITY-DATA: 1988SE-0001443 (April 19, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 339003 A</u>	October 25, 1989	E	004	
<u>DE 68901682 E</u>	July 9, 1992		000	G01F009/00
<u>EP 339003 B1</u>	June 3, 1992	E	007	G01F009/00
<u>SE 8801443 A</u>	October 20, 1989		000	
<u>US 5006994 A</u>	April 9, 1991		000	

INT-CL (IPC): G01F 9/00; G01M 15/00

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	HOWC	Draw De
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☐ 12. Document ID: SU 488425 A

L36: Entry 12 of 12

File: DWPI

Jan 23, 1976

DERWENT-ACC-NO: 1976-H1255X

DERWENT-WEEK: 197632

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TITLE: IC engine fuel feed mechanism - has engine speed sensitive switch giving rapid pump output rise at half rated max. speed

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	HOWC	Draw De
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Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: JP 2002029432 A

Using default format because multiple data bases are involved.

L20: Entry 1 of 6

File: JPAB

Jan 29, 2002

PUB-NO: JP02002029432A

DOCUMENT-IDENTIFIER: JP 2002029432 A

TITLE: ELECTRIC POWER STEERING CONTROL DEVICE

PUBN-DATE: January 29, 2002

INVENTOR-INFORMATION:

NAME

COUNTRY

MATSUSHITA, MASAKI

INT-CL (IPC): B62 D 5/04; B62 D 6/00; G01 L 5/22; H02 P 6/10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Summary	Claims	KWIC	Drawn De
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☐ 2. Document ID: JP 09024846 A

L20: Entry 2 of 6

File: JPAB

Jan 28, 1997

PUB-NO: JP409024846A

DOCUMENT-IDENTIFIER: JP 09024846 A

TITLE: CONTROLLER FOR ELECTRIC POWER STEERING DEVICE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Summary	Claims	KWIC	Drawn De
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☐ 3. Document ID: JP 02041976 A

L20: Entry 3 of 6

File: JPAB

Feb 13, 1990

PUB-NO: JP402041976A

DOCUMENT-IDENTIFIER: JP 02041976 A

TITLE: ELECTRIC POWER STEERING DEVICE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Summary	Claims	KWIC	Drawn De
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☐ 4. Document ID: JP 01067476 A

L20: Entry 4 of 6

File: JPAB

Mar 14, 1989

PUB-NO: JP401067476A

DOCUMENT-IDENTIFIER: JP 01067476 A

TITLE: CONTROL CIRCUIT FOR ELECTRIC POWER STEERING DEVICE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
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☐ 5. Document ID: JP 2002029432 A

L20: Entry 5 of 6

File: DWPI

Jan 29, 2002

DERWENT-ACC-NO: 2002-193244

DERWENT-WEEK: 200225

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TITLE: Electric power steering control device for vehicle, corrects offset value of motor current based on correction value determined using reference voltage

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
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☐ 6. Document ID: JP 07095796 A

L20: Entry 6 of 6

File: DWPI

Apr 7, 1995

DERWENT-ACC-NO: 1995-174747

DERWENT-WEEK: 199523

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TITLE: Motor current detector for electric powered steering wheels of motor vehicles - uses two operational amplifiers whose gains are equalised to measure drive and regeneration currents

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws
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Terms	Documents
L19 and (offset\$ with voltage)	6

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L20: Entry 1 of 6

File: JPAB

Jan 29, 2002

PUB-NO: JP02002029432A

DOCUMENT-IDENTIFIER: JP 2002029432 A

TITLE: ELECTRIC POWER STEERING CONTROL DEVICE

PUBN-DATE: January 29, 2002

INVENTOR-INFORMATION:

NAME

COUNTRY

MATSUSHITA, MASAKI

ASSIGNEE-INFORMATION:

NAME

COUNTRY

MITSUBISHI ELECTRIC CORP

APPL-NO: JP2000216348

APPL-DATE: July 17, 2000

INT-CL (IPC): B62 D 5/04; B62 D 6/00; G01 L 5/22; H02 P 6/10

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a motor-driven power steering control device, capable of always reducing a torque ripple of an assist motor even if the offset value of a current detecting means fluctuates.

SOLUTION: This motor-driven power steering control device is provided with a target current computing means 9 for inputting steering torque and travel speed to command a supply current to a brushless motor 5 for assisting steering force, a current detecting means 7 for detecting a motor current; a driving control means 10 for setting supply voltage of the brushless motor 5 from the deviation between the command value of the target current computing means 9 and the detection value of the current detecting means 7; an offset correction value learning determining means 11 determining on the basis of the command value of the target current computing means 9 to command learning of the correction value to the offset value of a current detected by the current detecting means 7; a reference voltage generating means 18 for outputting reference voltage according to the command of the offset correction value learning determining means 11; and an offset correcting means 12 for learning and storing the offset correction value from the motor current when applying the reference voltage, to correct the offset value of the current detecting means 7.

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L20: Entry 2 of 6

File: JPAB

Jan 28, 1997

PUB-NO: JP409024846A

DOCUMENT-IDENTIFIER: JP 09024846 A

TITLE: CONTROLLER FOR ELECTRIC POWER STEERING DEVICE

PUBN-DATE: January 28, 1997

INVENTOR-INFORMATION:

NAME

COUNTRY

KOIWAI, HISAYOSHI

ENDO, SHUJI

KANO, HIROYUKI

ASSIGNEE-INFORMATION:

NAME

COUNTRY

NIPPON SEIKO KK

APPL-NO: JP07197175

APPL-DATE: July 11, 1995

INT-CL (IPC): B62 D 5/04

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a current detector for correcting a relative error value of an offset value included in a current detected value of an electric power steering device or the offset value.

SOLUTION: At the time that a current of a motor turned on by an ignition key 11 is zero (the initial state), the difference between voltages to be generated on both ends of resistors R1, R2 inserted downstream from two arms of a FET motor driving circuit 30 is detected by operation amplifiers OP1, OP2 and taken as an offset value of the motor current detected value, and the relative error is stored in a memory 49 by a current correcting calculator 48. After a steering device is made into the operating state, the relative error of the offset value of the motor current value stored in the memory 49 is subtracted from the motor current value obtained by sampling for each specified time, and the motor current value (i) is calculated.

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File: JPAB

Feb 13, 1990

PUB-NO: JP402041976A

DOCUMENT-IDENTIFIER: JP 02041976 A

TITLE: ELECTRIC POWER STEERING DEVICE

PUBN-DATE: February 13, 1990

INVENTOR-INFORMATION:

NAME

COUNTRY

NOHARA, MAKOTO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

KOYO SEIKO CO LTD

APPL-NO: JP63191842

APPL-DATE: July 29, 1988

INT-CL (IPC): B62D 5/04

ABSTRACT:

PURPOSE: To control an electric motor for assisting steering force in relation to detected torque with good accuracy by simply setting the output voltage of a torque sensor to a suitable deadzone.

CONSTITUTION: The offset voltage of an offset voltage output portion 4 is obtained by dividing the output voltage of a power supply stabilizing portion 2, and the offset voltage is applied to a differential amplifier circuit 11 and a voltage-current conversion circuit 15 in such a manner as to become a designated voltage when a torque sensor TS does not detect torque. The differential amplifier circuit 11 obtain the difference between the respective output voltages of peak detection circuits 8, 13, and the output voltage obtained by adding the offset voltage to the obtained difference voltage is applied to the voltage-current conversion circuit 15. Each output of the voltage-current conversion circuits 14, 15 are input to voltage-current conversion portions 16, 17 through connectors CN1, CN2, and the output is input to a computer 18. The computer incorporates a memory, and the offset voltage is stored in the memory by operating a key switch.

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L20: Entry 4 of 6

File: JPAB

Mar 14, 1989

PUB-NO: JP401067476A

DOCUMENT-IDENTIFIER: JP 01067476 A

TITLE: CONTROL CIRCUIT FOR ELECTRIC POWER STEERING DEVICE

PUBN-DATE: March 14, 1989

INVENTOR-INFORMATION:

NAME

COUNTRY

NISHIMURA, SHIGEO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

KOYO SEIKO CO LTD

APPL-NO: JP62222828

APPL-DATE: September 4, 1987

INT-CL (IPC): B62D 5/04

ABSTRACT:

PURPOSE: To improve responsibility for driving an electric motor by insertedly providing a feedback circuit to input an electric current detecting signal of the electric motor for encouraging steering force to an error amplifier with an amplifier in which both an offset voltage and an input bias current are small.

CONSTITUTION: An output signal of a torque sensor TS to detect the torque of a column shaft provided with a steering shaft is converted into a digital signal through an amplifier 1 and an A/D converter 2, and then inputted to the one input terminal of an error amplifier 5. An error signal between the digital signal and an electric current detecting signal of an electric motor inputted to the other input terminal of the ~~error amplifier 5~~ is fed to an electric motor driving circuit 6 to control each of transistors T1~T4 for controlling the driving of an electric motor 7. In this case, an electric circuit between an input current detecting resistance R0 and the error amplifier 5 is insertedly provided with ~~a smoothing filter 5~~ and an amplifier 11 for which one being small in both an offset voltage and an input bias current shall be used.

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L20: Entry 5 of 6

File: DWPI

Jan 29, 2002

DERWENT-ACC-NO: 2002-193244

DERWENT-WEEK: 200225

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TITLE: Electric power steering control device for vehicle, corrects offset value of motor current based on correction value determined using reference voltage

PATENT-ASSIGNEE: MITSUBISHI ELECTRIC CORP (MITQ)

PRIORITY-DATA: 2000JP-0216348 (July 17, 2000)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> JP 2002029432 A	January 29, 2002		012	B62D005/04

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2002029432A	July 17, 2000	2000JP-0216348	

INT-CL (IPC): [B62 D 5/04](#); [B62 D 6/00](#); [B62 D 101:00](#); [B62 D 119:00](#); [G01 L 5/22](#); [H02 P 6/10](#)

ABSTRACTED-PUB-NO: JP2002029432A

BASIC-ABSTRACT:

NOVELTY - Supply voltage of brushless motor (5) is set up based on detected value of motor current. A reference voltage is generated for determining offset correction value of motor current. Offset value of current is corrected based on the determined offset correction value.

USE - Electric power steering control device for vehicle.

ADVANTAGE - Torque ripple of brushless motor can be reduced and reliable steering control is ensured.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of electric power steering control device. (Drawing includes non-English language text).

Brushless motor 5

ABSTRACTED-PUB-NO: JP2002029432A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/8

DERWENT-CLASS: Q22 S02 V06 X13

EPI-CODES: S02-F03X; V06-N04; X13-G01C;

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L20: Entry 6 of 6

File: DWPI

Apr 7, 1995

DERWENT-ACC-NO: 1995-174747

DERWENT-WEEK: 199523

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TITLE: Motor current detector for electric powered steering wheels of motor vehicles - uses two operational amplifiers whose gains are equalised to measure drive and regeneration currents

PATENT-ASSIGNEE: KOYO SEIKO CO LTD (KOYS)

PRIORITY-DATA: 1993JP-0257803 (September 20, 1993)

Search Selected

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> <u>JP 07095796 A</u>	April 7, 1995		006	H02P007/29

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 07095796A	September 20, 1993	1993JP-0257803	

INT-CL (IPC): B62 D 5/04; G01 R 19/00; G01 R 31/00; H02 P 7/29

ABSTRACTED-PUB-NO: JP 07095796A

BASIC-ABSTRACT:

The detector uses chopper control to operate the drive circuit connected to the motor and power supply unit. The drive current 'If' flows to the motor 'M' from a battery 'B'. Then a regeneration current 'Ir' flows to the battery, across a shunt resistance 'Rs'.

The motor current detector comprises a first operational amplifier 'OP1' which detects the current that flows to the motor from the power supply unit. There is a second operational amplifier 'OP2' which detects the regeneration current flowing back to the battery. The gain of these two amplifiers are made equal.

ADVANTAGE - Detects regeneration current with high precision. Eliminates need for peak holding circuit and offset voltage compensating circuit. Enables miniaturisation.

ABSTRACTED-PUB-NO: JP 07095796A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/5

DERWENT-CLASS: Q22 S01 V06 X22
EPI-CODES: S01-D01; S01-G07; V06-N02; X22-C05A;

EPI-CODES: S01-D01; S01-G07; V06-N02; X22-C05A;

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L21: Entry 4 of 5

File: USPT

Aug 13, 1985

DOCUMENT-IDENTIFIER: US 4534707 A

TITLE: Hydrostatic vehicle controlBrief Summary Text (3):

This invention relates generally to a control system for a hydrostatic vehicle, and more particularly to an electronic device for controlling engine speed and hydraulic pump displacement in response to loads subjected on a hydrostatic vehicle.

Brief Summary Text (5):

In the field of hydrostatic vehicles, for example, excavators, variable displacement hydraulic pumps are typically driven by a prime mover, providing hydraulic power to a plurality of work implements as well as to the drive system. Excavators, being extremely versatile machines, are useful in performing a large number of different and varied tasks (e.g. pipelaying, mass excavation, trenching, logging, etc.), each task having its own unique hydraulic flow and pressure requirements. For example, during mass excavation, hydraulic power requirements are quite high with brief periods of reduced need, but in pipelaying, sustained periods of low flow during waiting are common with sessions of moderate to high flow.

Detailed Description Text (18):

The actual engine speed signal is received from the second means 46 and delivered to the negative input of a third low pass filter 154. The filtered engine speed signal is then delivered to a fourth summing means 156 where it is added to the desired engine speed signal. The resulting signal is, once again, indicative of an error signal or the difference between the actual and desired engine speed, but opposite in sign to the corresponding error signal in the underspeed control means. The error signal is then multiplied by a third preselected coefficient $K_{sub.P1}$ and delivered to a fifth summing means 158 as the proportional term of the control equation. Simultaneously, the actual engine speed signal is delivered to a fourth low pass filter 160 and passed to a negative input of a sixth summing means 162. A positive input of the sixth summing means 162 receives the unfiltered actual engine speed signal; and resultingly, the sixth summing means 162 delivers a signal based on the derivative of actual engine speed. The derivative signal is multiplied by a fourth coefficient $K_{sub.D1}$ and delivered to the fifth summing means 158. A second actuator setpoint means 164 delivers a tenth signal of constant magnitude representative of a maximum allowable rack position to the fifth summing means 158. The fifth summing means 158 adds the proportional, derivative, and constant signals and delivers this sum as an eleventh signal for controlling the magnitude of the fifth signal. A processing means 166 receives the eleventh signal and accesses a preselected memory location indicative of the magnitude of the fifth signal. A software look-up routine determines the magnitude of the eleventh signal and retrieves a binary number from a memory location determined by the magnitude of the eleventh signal, as described in the operation of the underspeed control means 36. The binary number determines the duration of the fifth signal and; consequently, controls the rack position and fuel supply.

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Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 20030100975 A1

Using default format because multiple data bases are involved.

L24: Entry 1 of 5

File: PGPB

May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100975

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030100975 A1

TITLE: Engine control system

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hashimoto, Kohji	Tokyo		JP	
Nakamoto, Katsuya	Tokyo		JP	

US-CL-CURRENT: 701/1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 2. Document ID: US 20020016653 A1

L24: Entry 2 of 5

File: PGPB

Feb 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020016653

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020016653 A1

TITLE: Vehicle drive override subsystem

PUBLICATION-DATE: February 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Levine, Alfred B.	Bethesda	MD	US	

US-CL-CURRENT: 701/1; 701/23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 3. Document ID: US 6812942 B2

L24: Entry 3 of 5

File: USPT

Nov 2, 2004

US-PAT-NO: 6812942

DOCUMENT-IDENTIFIER: US 6812942 B2

TITLE: Context-responsive in-vehicle display system

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des
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☐ 4. Document ID: US 6708088 B2

L24: Entry 4 of 5

File: USPT

Mar 16, 2004

US-PAT-NO: 6708088

DOCUMENT-IDENTIFIER: US 6708088 B2

TITLE: Vehicle behavior control apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des
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☐ 5. Document ID: US 4312041 A

L24: Entry 5 of 5

File: USPT

Jan 19, 1982

US-PAT-NO: 4312041

DOCUMENT-IDENTIFIER: US 4312041 A

TITLE: Flight performance data computer system

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des
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Terms	Documents
L23 and 701/?ccls.	5

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L24: Entry 2 of 5

File: PGPB

Feb 7, 2002

DOCUMENT-IDENTIFIER: US 20020016653 A1
TITLE: Vehicle drive override subsystem

Application Filing Date:
20010802

Current US Classification, US Primary Class/Subclass:
701/1

Detail Description Paragraph:

[0015] According to the invention, the subsystem also automatically overrides complete manual control of the vehicle to the limited extent necessary to prevent speeding of the vehicle beyond the speed limit established by the traffic laws. Referring again to FIG. 1, the prevailing speed limit for each section of the street or road is identified in bar coded form on the street or road sign 111 for that section of the road. This code is read by the onboard reader 10, as the vehicle passes that road sign 111 and a speed limit signal corresponding to the code on the sign 11 is also directed to the analyzer 12. The existing speed of the vehicle is available from the conventional speedometer and a signal from the speedometer is transduced at 17 and directed to the analyzer 12 for comparison with the speed limit signal from the codereader 10. Where the existing speed of the vehicle exceeds the posted speed limit, the analyzer 12 energizes the the brake control 13 and the fuel control 14 to override the manual control of the vehicle and automatically reduce its speed to the posted speed limit. However, since it is occasionally necessary for the vehicle to temporarily exceed the speed limit to avoid an obstacle in the road, or to pass another vehicle, or for other necessary reason, the coded road sign 11 may record a speed limit that is 5 mph greater than the actual speed limit (for cities and developed areas) and that is 10 mph greater than the speed limit outside of such city areas. Thus according to the invention, the speed limit for each section of the road is identified by a coded road sign 11, and this information is read by a remote code reader 10 on board the vehicle as the vehicle passes each such sign 11. The actual speed of the vehicle is sensed at 17 and compared with the posted speed limit, and if the vehicle speed is found to exceed the speed limit, the subsystem overrides the manual control of the vehicle to automatically reduce its maximum speed to conform with the posted speed limit. After the vehicle maximum speed has been reduced and regulated to that required by the traffic law, the override of the vehicle braking and fuel control is discontinued and driver controlled manual operation of the vehicle is restored.

Detail Description Paragraph:

[0022] Road Traction-speed Control Where the traction provided by a vehicle's tires on the road is diminished due to adverse weather or other condition, there is a need for reducing the vehicle's speed and rate of acceleration for safety of the vehicle, such as to prevent skidding at curves and to permit stopping of the vehicle within required distances should that become necessary. Many drivers continue to drive at the same speeds and accelerate despite the fact that the road may provide reduced traction due to rain, snow, sleet, and ice. As a result, their vehicles skid in an uncontrolled manner when the road curves or when the brakes are applied to slow down or stop the vehicle. Similarly where the road surface has an oil slick, moisture or ice, or contains patches of sand or gravel deposits, or is

broken in sections, or contains potholes; loss of tire traction can also result creating uncontrolled dangerous skidding, fishtailing, or other undesired movements of the vehicle resulting in full or partial loss of control. of the vehicle. According to the present invention, there is provided one or more sensors for detecting the surface condition of the road ahead of the vehicle to determine if the tire-road traction is reduced. If such condition is found to exist, then the system override the manual control of the vehicle to the extent of reducing its maximum speed and its rate of acceleration to a level that is safer for driving under the detected conditions.

Detail Description Paragraph:

[0032] Reduction or loss of road traction can result in any of these uncontrolled movements. Skidding, for example can result from loss of traction, excess speed around curves in the road, braking on a broken highway, accelerating on a slippery road, or for a number of other vehicle movements under adverse conditions. Fishtailing of the vehicle as well as tilt or rollover often results from too sharp a turn, or abruptly braking the vehicle for sudden stops. Any of such uncontrolled movements can result in car crashes or collisions with other vehicles or objects, thereby endangering and injuring the vehicle occupants and destroying properties. According to the present invention, these uncontrolled movements are detected by onboard sensors in the vehicle, and the manual operation of the vehicle in response to such detected conditions is automatically overridden in a limited manner to reduce the maximum speed of the vehicle and reduce its rate of acceleration, both thereby lessening the conditions that can result in such uncontrolled movements of the vehicle.

CLAIMS:

11. A road by road cellular system for regulating the maximum speed and acceleration-deceleration of a vehicle having a fuel control feed and braking subsystem, and regulating the stopping of the vehicle as required by traffic laws and regulations, an onboard control system for the vehicle that is connectable to the vehicle fuel control feed and braking subsystems for regulating the vehicle maximum speed, acceleration, and stopping, a cellular system of digitally coded traffic signs containing the traffic laws and regulations, dispersed at spaced apart locations along the streets and roads, said digitally coded signs being remotely readable by said moving vehicle passing along said streets and roads, thereby to communicate the traffic laws and regulations to said moving vehicle, said control system responding when the content of said signs require stopping of the vehicle to override the manual control of the vehicle to stop the vehicle, and said control system responding when the vehicle speed exceeds the speed limit set forth on said signs to override the manual control of the vehicle and regulate its maximum speed and acceleration.

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L27: Entry 1 of 3

File: PGPB

May 29, 2003

DOCUMENT-IDENTIFIER: US 20030100975 A1

TITLE: Engine control system

Application Filing Date:20020423Current US Classification, US Primary Class/Subclass:701/1Summary of Invention Paragraph:

[0015] The operation control system shown FIG. 17b is applied to the above-described Example 1, in which under the abnormal state that the throttle valve opening at the time of stopping the motor is not less than the default opening. In this operation system, the supply fuel control means 4 is controlled in such a manner that the engine speed may be not more than the threshold value set by the upper limit engine speed setting means 2c.

Detail Description Paragraph:

[0089] However, in the case that there is any abnormality in the gear mechanism and when occurring any actuator abnormality that cannot return to the targeted default position, it should be assumed that there is a possibility of locking at a position of enormously large valve opening.

Detail Description Paragraph:

[0181] However, the fuel cut control is carried out by driving the fuel injection valve 305 by the engine speed suppression means 318 while conducting a feedback of the signal detected by the engine speed detecting sensor 304 so as to prevent the engine speed from exceeding, for example, 2500 rpm by the first upper limit engine speed threshold setting means 705.

Detail Description Paragraph:

[0203] Numeral 806 designates accelerator return detecting means for carrying out the switching operation depending on whether or not the accelerator pedal is returned. Numeral 318 designates engine speed suppression means. This suppression means 318, during the accelerator pedal being depressed, drives the fuel injection valve 305 so that the engine speed computed by the first upper limit engine speed threshold computing means 802 may be coincident to the feedback engine speed detected by means of the engine speed detecting sensor 304, thereby conducting the fuel cut control.

Detail Description Paragraph:

[0209] Further, the computation of the engine speed by the above-described second upper limit engine speed threshold computing means 807 is based on an engine torque characteristic in FIG. 14. The engine output torque shown in the axis of ordinates is illustrated in the form of substantially quadratic curve of mound shape with respect to the engine speed shown with the axis of abscissas. Further, the greater the maximum engine torque value is, the larger the throttle valve opening is.

Detail Description Paragraph:

[0246] Particularly, in the foregoing embodiment system according to the invention,

the fuel cut control is carried out so that the engine speed may be lower by the idle engine speed threshold setting means, the upper limit engine speed threshold setting means, the upper limit engine speed threshold computing means, etc. In the fuel cut control, to secure a stable engine speed, it is devised that number of times of the fuel injection is thinned out, or alternately thinned out for a part of the multi-cylinder engine.

CLAIMS:

3. The engine control system according to claim 1, further comprising first or second throttle control means, first or second upper limit engine speed threshold setting means, first or second upper limit engine speed threshold computing means, fuel cut control means, first evacuation operation means as one of said serious abnormality evacuation operation means, and second evacuation operation means as one of said slight abnormality evacuation operation means: wherein said first throttle control means is drive control means that is applied when both of said accelerator position sensor and throttle position sensor are normal, and controls open and close of an air supply throttle valve by means of said driving motor so that an output detected by the normal throttle position sensor may be in a relation of substantially proportional to an output detected by the normal accelerator position sensor; said second throttle control means is drive control means that is applied when said accelerator position sensor is normal while said throttle position sensor is abnormal, and controls the open and close of the air supply throttle valve by means of said driving motor so that an engine speed or vehicle speed detected by said engine speed or vehicle speed detecting means may be in a relation of substantially proportional to the output detected by the normal accelerator position sensor; said first upper limit engine speed threshold setting means is setting means that selects and sets a predetermined engine speed not higher than a permissible maximum engine speed under the normal operation; said second upper limit engine speed threshold setting means is setting means that selects and sets a predetermined engine speed not higher than the engine speed set by said first upper limit engine speed threshold setting means; said first upper limit engine speed threshold computing means is computing means that is applied when said accelerator position sensor is normal, and computes a target upper limit engine speed so that the engine speed may be an engine speed substantially proportional to the output detected by the normal accelerator position sensor and also an engine speed not higher than that set by said first upper limit engine speed threshold setting means; said second upper limit engine speed threshold computing means is computing means that is applied when said accelerator position sensor is abnormal and the throttle position sensor is normal, and computes the target upper limit engine speed so that the engine speed may be an engine speed substantially in inverse proportion to the output detected by the normal throttle position sensor and also an engine speed not higher than that set by said first upper limit engine speed threshold setting means; said fuel cut control means is fuel injection control means that suppresses the fuel injection so that the engine speed detected by said engine speed detecting means may be not higher than the engine speed to be the target; said first evacuation operation means is means that conducts the evacuation operation for controlling the engine speed by said fuel cut control means so that the engine speed computed by said first or second upper limit engine speed threshold computing means, or second upper limit engine speed threshold setting means may be the upper limit target engine speed; and said second evacuation operation means is means that controls the engine speed by said fuel cut control means so that the engine speed set by said first upper limit engine speed threshold setting means may be the upper limit target engine speed, and carries out the evacuation operation at a variable engine speed by said first or second throttle control means.

11. The engine control system according to claim 8, further comprising a slightest abnormality operation mode provided in said second evacuation operation means: wherein said slightest abnormality operation mode is an operation mode available in

the case that although any serious abnormality is not detected, one of a pair of accelerator position sensors or/and one of a pair of throttle position sensors is abnormal; and engine speed is regulated by said fuel cut control means so that the engine speed set by said first upper limit engine speed threshold setting means may be the upper limit target engine speed, and the evacuation operation at the variable engine speed using the accelerator pedal is performed by said first throttle control means.

12. The engine control system according to claim 8, further comprising a slight abnormality operation mode provided in said second evacuation operation means: wherein said slight abnormality operation mode is an operation mode available in the case that any serious abnormality is not detected, at least one of a pair of accelerator position sensors is regarded as being normal, but both of a pair of throttle position sensors are abnormal; and engine speed is regulated by said fuel cut control means so that the engine speed set by said first upper limit engine speed threshold setting means may be the upper limit target engine speed, and the evacuation operation at the variable engine speed using the accelerator pedal is performed by said second throttle control means.

14. The engine control system according to claim 8, further comprising: a serious abnormality operation mode provided in said first evacuation operation means; said serious abnormality operation mode being an operation mode available in the case that at least one of said pair of accelerator position sensors is normal although any serious abnormality is detected; accelerator return detecting means and idle engine speed threshold setting means; said accelerator return detecting means being means for determining that the accelerator pedal is returned when an output detected from said accelerator switch operating during the accelerator pedal not being depressed or a pair of accelerator position sensors is in the proximity of a predetermined value; said idle engine speed threshold setting means being means for setting the target engine speed to the idle engine speed; and wherein said serious abnormality operation mode controls the engine speed by said fuel cut control means so that the engine speed computed by said first upper limit engine speed threshold computing means may be the target engine speed, and when said accelerator return detecting means detects the return of the accelerator pedal, irrespective of the output from said accelerator position sensor, controls the engine speed by said fuel cut control means so that the engine speed detected by the engine speed detecting means may be a predetermined engine speed set by said idle engine speed threshold setting means, thereby eventually performing the evacuation operation at the variable engine speed using the accelerator pedal.

15. The engine control system according to claim 8, further comprising a most-serious abnormality operation mode provided in said first evacuation operation means: wherein said most-serious abnormality operation mode is an operation mode available in the case that the serious abnormality is detected, and moreover both of said pair of accelerator position sensors are abnormal; and said fuel cut control means performs a fuel injection control so that the target engine speed may be the threshold value computed by said second upper limit engine speed threshold computing means and, when there is no throttle position sensor regarded as non-defective, conducts a fuel injection control by the fuel cut control means so that the target engine speed may be not higher than a predetermined engine speed set by said second upper limit engine speed threshold setting means, thereby eventually performing the evacuation operation by operating the brake pedal with different strength.

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L36: Entry 12 of 12

File: DWPI

Jan 23, 1976

DERWENT-ACC-NO: 1976-H1255X

DERWENT-WEEK: 197632

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TITLE: IC engine fuel feed mechanism - has engine speed sensitive switch giving rapid pump output rise at half rated max. speed

PATENT-ASSIGNEE: DAIMLER-BENZ AG (DAIM)

PRIORITY-DATA: 1969DE-1955379 (November 4, 1969)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> <u>SU 488425 A</u>	January 23, 1976		000	

INT-CL (IPC): F02N 17/04

ABSTRACTED-PUB-NO: SU 488425A

BASIC-ABSTRACT:

The transducer 10 located between the speed sensitive unit 9 and pump 6 may be either a limiting switch, or a functional link giving a flat fuel feed curve before and after the sharp rise, or a linear relationship of fuel feed to engine range of operation. The starter installation 2 has direct fuel injection with spark plug 3 ignition and is located in air inlet 4. Control unit 9 varies the vehicle electrical feed through transducer 10 to fuel pump 6 in accordance with engine speed and gives a significant increase between starting speed and 50% of rated.

ABSTRACTED-PUB-NO: SU 488425A

EQUIVALENT-ABSTRACTS:

DERWENT-CLASS: Q54

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L36: Entry 10 of 12

File: DWPI

Apr 26, 1990

DERWENT-ACC-NO: 1990-125720

DERWENT-WEEK: 199017

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TITLE: Electronic RPM regulator for Diesel engine - has electronic control unit forming regulating path from detected working valves and stored threshold valves

INVENTOR: FRAENKLE, G

PATENT-ASSIGNEE: DAIMLER-BENZ AG (DAIM)

PRIORITY-DATA: 1989DE-3911145 (April 6, 1989)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> DE 3911145 C	April 26, 1990		000	
<input type="checkbox"/> EP 391062 A	October 10, 1990		000	
<input type="checkbox"/> EP 391062 B1	November 4, 1992	G	005	F02D041/38
<input type="checkbox"/> US 5086739 A	February 11, 1992		000	

DESIGNATED-STATES: CH FR GB IT LI SE CH FR GB IT LI SE

CITED-DOCUMENTS: 2.Jnl.Ref; A3...199141 ; DE 3710081 ; GB 2137772 ; JP 55049534 ; JP 58072633 ; NoSR.Pub

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 3911145C	April 6, 1989	1989DE-3911145	
EP 391062A	February 27, 1990	1990EP-0103821	
EP 391062B1	February 27, 1990	1990EP-0103821	
US 5086739A	April 6, 1990	1990US-0505691	

INT-CL (IPC): F02D 31/00; F02D 41/18; F02D 41/38; F02M 37/00

ABSTRACTED-PUB-NO: DE 3911145C

BASIC-ABSTRACT:

An engine management system for turbocharged engines computes an optimum fuel/air ratio to ensure that the exhaust emission is below the acceptable limits. This is effectively a level where the exhaust emission is not visible. To compensate for lower atmospheric pressures at greater heights, the effective limits are raised,

because the exhaust gases expand more at lower pressure.

The system has a barometric pressure sensor and its output is used to modulate the programmed control. The relationship between fuel and air is raised with decreasing atmospheric pressure to allow a more efficient engine running.

ADVANTAGE - Improved efficiency, clean exhaust control.

ABSTRACTED-PUB-NO: EP 391062B
EQUIVALENT-ABSTRACTS:

Electronic speed controlling device for an air compressing internal combustion engine, with sensors for the detection of operating values such as charge air temperature, charge air pressure, r.p.m. travelling speed, with an absolute pressure gauge as well as with an electronic control device detecting the operating values and which, from the operating values and taking stored limit values into account, forms a regulating path of a fuel amount servo component, the limit values containing at least smoke limit curves by means of which, depending upon the limit values detected, maximum fuel amounts can be preset, and greater amounts of fuel being injected when the atmosphere pressure drops, characterised in that the smoke limit curves, when the atmosphere pressure drops, are raised to higher amounts of fuel in such a manner that, when the absolute pressure alters, a constant smoke number is obtained.

US 5086739A

The electronic speed governor comprises a device for sensing operating values of the internal-combustion engine and a device for measuring an absolute pressure to determine air mass for the internal-combustion engine. A control unit has stored smoke-limit curves graphically providing engine operating parameters which produce a blackening value of the smoke emission. The control unit is coupled to the sensor and the measurer, and receives as inputs the operating values and the determined air mass and controls a fuel mass as a function of the operating values the air mass and the stored smoke-limit curves. The control unit uses shifted smoke-limit curves in response to decreasing atmospheric pressure so that the blackening value of the smoke emission per unit volume of the internal-combustion engine remains constant, and corrects a fuel mass according to the shifted smoke-limit curves. USE - For air-compression internal-combustion engine. (5pp)

CHOSEN-DRAWING: Dwg.1/1 Dwg.1/1

DERWENT-CLASS: Q52 Q53 X22
EPI-CODES: X22-A03B;

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L36: Entry 9 of 12

File: DWPI

Aug 30, 1990

DERWENT-ACC-NO: 1990-268823

DERWENT-WEEK: 199036

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TITLE: Vehicle diesel engine control unit - has base regulator which is supplied signals from transmitters and sensors to detect operating parameters and adjust fuel supply

INVENTOR: AUGESKY, C; BITTINGER, W ; HEISS, M ; SEIBT, A

PATENT-ASSIGNEE: VOEST ALPINE AG (VEOS), AUTOMOTIVE DIESEL GMBH (AUTON)

PRIORITY-DATA: 1989DE-3906083 (February 27, 1989)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> DE 3906083 A	August 30, 1990		000	
<input type="checkbox"/> DE 3906083 C	June 13, 1991		000	
<input type="checkbox"/> DE 59000383 G	December 3, 1992		000	F02D041/38
<input type="checkbox"/> EP 385969 A	September 5, 1990		000	
<input type="checkbox"/> EP 385969 B1	October 28, 1992	G	012	F02D041/38
<input type="checkbox"/> ES 2036112 T3	May 1, 1993		000	F02D041/38

DESIGNATED-STATES: AT BE CH DE ES FR GB IT LI NL SE AT BE CH DE ES FR GB IT LI NL SE

CITED-DOCUMENTS: DE 3822582; EP 105828 ; EP 148107 ; GB 2197093 ; JP 58133453 ; JP 59120730 ; US 4130095 ; US 4282842 ; 02Jnl.Ref

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 3906083A	February 27, 1989	1989DE-3906083	
DE 59000383G	February 26, 1990	1990DE-0500383	
DE 59000383G	February 26, 1990	1990EP-0890050	
DE 59000383G		EP 385969	Based on
EP 385969A	February 26, 1990	1990EP-0890050	
EP 385969B1	February 26, 1990	1990EP-0890050	
ES 2036112T3	February 26, 1990	1990EP-0890050	
ES 2036112T3		EP 385969	Based on

INT-CL (IPC): F02D 41/14; F02D 41/38

ABSTRACTED-PUB-NO: DE 3906083A

BASIC-ABSTRACT:

An output signal of the base regulator (3) is used as a control signal for driving at least one electromechanical adjusting element for the fuel supplied to the engine, depending on the engine operating parameters such as the rpm. An exhaust gas sensor (8) especially a soot sensor, with a sensor evaluation unit (9) delivers the exhaust gas actual value (AGi). A desired value storage (12) stores the max. permitted soot value (AGMS). An adaptive performance graph (15) is provided, in which depending on a working point vector (AP) a max. permitted control signal (RWM) is established. A storage (13) stores values of the working point vector (AP (tm)).

A min. value selector stage (10) controls the adjusting element (2) which receives signals (RWM) as well as control signals (RWB) computed in the base regulator (3). A limiting regulator (14) receives values (AGMS), values (AGi) and the status signal (S) of the stage (10), and its output signal as a correction signal (DELTA RW) is supplied to the input of the adaptive panel (15).

ADVANTAGE - Facilitates full load limitation with optimum use of engine power and takes account of max. soot value, also mfg. tolerances and ageing.

ABSTRACTED-PUB-NO: DE 3906083C

EQUIVALENT-ABSTRACTS:

Diesel engine fuel control system uses an electronic regulator fed with engine parameters, pedal setting, engine temperature to output a control signal to an electromechanical adjuster for the fuel feed. A soot monitor checks exhaust soot via a maximum soot storage memory, and a performance graph base on working point (engine parameter) vector fixed a maximum control signal with real-time read-out values. A limit regulator compares the maximum ideal, permissible soot figure with the actual sensed value to issue a correction signal for the fuel volume. The electromagnetic adjuster is actuated by the output of a minimum selection stage. A storage memory (13) or delay element stores the working point vector (APtm) lag time behind the soot sensor ideal check time (8(tvO by the measuring inertia (DELTA t) of the sensor (8), using an adaptive performance graph (15). The minimum selection stage (10) is fed with the maximum graph control signal (RWM) plus the control signal (RWB) from the regulator (3) and emits a status signal (S) if the limit was applied at the lag time. This status signal is also fed to the limit regulator (14) whose output signal is fed as correction signal (DELTA RW) to the graph input as controlled by the vector signal set back by the measuring inertia time. ADVANTAGE - Engine load maximised to permitted exhaust soot values unaffected by measuring inertia or ageing.

(9pp)

EP 385969B

A device for automatically controlling the amount of fuel supplied to a diesel engine, comprising - an electronic base controller (3) which is supplied with signals from transmitters and sensors (4, 5 and 6) for determining operating parameters of the engine, such as the speed (n), the accelerator pedal position and the engine temperature, and which in dependence on these operating parameters generates an actuating output signal for driving at least one electromechanical actuator (2) for controlling the fuel supply to the engine, - a soot value sensor (8) for measuring the soot load in the exhaust gas and a sensor signal evaluating

means (9) delivering an actual soot value (AG), - a set value store (12) for the maximum permissible soot value (AGMS), - a performance graph (15) in which a maximum permissible actuating signal (RWM) is determined in dependence on a working point vector (AP) consisting of values of operating parameters, and from which the values of the actuating signal (RWM(to)) at the actual time (to), controlled by a working point vector (AP(to)) of the base controller (3), are read out, and - a limitation controller (14) for comparing the set value (AGMS) for the maximum permissible soot valu

CHOSEN-DRAWING: Dwg.1/5

DERWENT-CLASS: Q52 X22

EPI-CODES: X22-A03A1;

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L36: Entry 7 of 12

File: DWPI

Apr 17, 2001

DERWENT-ACC-NO: 2001-364272

DERWENT-WEEK: 200138

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TITLE: Fuel cut-off control device for IC engine for vehicles, performs repeated cut-off and reset until parameters of engine speed/vehicle speed correlated with temperature of catalyst converter reduces to preset level

PATENT-ASSIGNEE: MITSUBISHI MOTOR CORP (MITM)

PRIORITY-DATA: 1999JP-0285310 (October 6, 1999)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> JP 2001107788 A	April 17, 2001		007	F02D041/22

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2001107788A	October 6, 1999	1999JP-0285310	

INT-CL (IPC): [F01 N 3/20](#); [F01 N 3/24](#); [F02 D 41/04](#); [F02 D 41/22](#); [F02 D 41/32](#); [F02 D 45/00](#)

ABSTRACTED-PUB-NO: JP2001107788A

BASIC-ABSTRACT:

NOVELTY - The device performs repeated fuel cut-off and reset when the engine speed (Ne)/vehicle speed (V) reaches upper limit for cut-off (Ne1,V1). The cut-off and reset is repeated until the parameters such as engine speed/vehicle speed correlated with the catalyst converter temperature reduces to a preset level (t1).

USE - For internal combustion engine of vehicles.

ADVANTAGE - Prevents deterioration of catalyst due to undue temperature rise as fuel cut-off/reset is repeated until correlated parameters reduces to preset level.

DESCRIPTION OF DRAWING(S) - The figure shows the graph showing relationship of engine speed and catalyst temperature during fuel cut-off control. (Drawing includes non-English language text).

ABSTRACTED-PUB-NO: JP2001107788A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2/4

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L36: Entry 5 of 12

File: DWPI

Sep 9, 2003

DERWENT-ACC-NO: 2003-640226

DERWENT-WEEK: 200369

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TITLE: Speed limiting device for vehicle, makes air fuel ratio lean and performs ignition control, when speed limit reaches lower and higher speed threshold values, respectively

INVENTOR: KATAYAMA, A; MATSUZAKI, M ; SUZUKI, S ; WAKAYAMA, H

PATENT-ASSIGNEE: HONDA GIKEN KOGYO KK (HOND), HONDA MOTOR CO LTD (HOND)

PRIORITY-DATA: 2002JP-0004949 (January 11, 2002)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> BR 200300028 A	September 9, 2003		000	F02P009/00
<input type="checkbox"/> JP 2003206779 A	July 25, 2003		007	F02D029/02
<input type="checkbox"/> CN 1431392 A	July 23, 2003		000	F02D041/04

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
BR 200300028A	January 10, 2003	2003BR-0000028	
JP2003206779A	January 11, 2002	2002JP-0004949	
CN 1431392A	January 10, 2003	2003CN-0101534	

INT-CL (IPC): F02 D 29/02; F02 D 41/04; F02 D 43/00; F02 D 45/00; F02 M 7/23; F02 M 7/24; F02 M 17/38; F02 M 19/06; F02 P 9/00

ABSTRACTED-PUB-NO: JP2003206779A

BASIC-ABSTRACT:

NOVELTY - A lower speed threshold value and a higher speed threshold value are preset. When the speed limit reaches lower threshold value the air fuel ratio is made lean. When the vehicle speed reaches the higher threshold value, ignition control is performed.

USE - For vehicle.

ADVANTAGE - Prevents unburnt hydrocarbon emission and reduces load on catalyst in exhaust path as fuel air ratio is made lean before effecting ignition degradation.

DESCRIPTION OF DRAWING(S) - The figure is a graph showing speed limit and fuel

leanization and ignition degradation control relationship. (Drawing includes non-English language text).

ABSTRACTED-PUB-NO: JP2003206779A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.4/8

DERWENT-CLASS: Q52 Q53 Q54 X22
EPI-CODES: X22-A01B; X22-A03A2A;

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L36: Entry 4 of 12

File: EPAB

Feb 14, 1985

PUB-NO: DE003327370A1

DOCUMENT-IDENTIFIER: DE 3327370 A1

TITLE: Fuel injection pump for supercharged diesel internal combustion engines, especially distributor injection pump

PUBN-DATE: February 14, 1985

INVENTOR-INFORMATION:

NAME

COUNTRY

DJORDJEVIC, ILIJA DIPL ING

DE

ASSIGNEE-INFORMATION:

NAME

COUNTRY

BOSCH GMBH ROBERT

DE

APPL-NO: DE03327370

APPL-DATE: July 29, 1983


PRIORITY-DATA: DE03327370A (July 29, 1983)

US-CL-CURRENT: 123/367; 123/387

INT-CL (IPC): F02D 1/10

EUR-CL (EPC): F02D001/12; F02M059/44

ABSTRACT:

CHG DATE=19990617 STATUS=O> A fuel injection pump for supercharged diesel internal combustion engines, especially distributor injection pump (10), is proposed in which the full load delivery is limited by a correction of the maximum admissible full load delivery as a function of the engine speed. The pump (10) contains a control device (12) with three-dimensional cam (19) and control piston (23) integral with this, which is actuated by the pressure of the fuel in the internal chamber controlled as a function of the engine speed. The control piston (23) contains an inner piston (31) in a piston chamber (30), which inner piston under the fuel pressure bears against an axial stop (32) and following a common piston stroke strikes on a stop (32) fixed to the housing, whereupon only the control piston (23) is displaced further relative to the inner piston (31) against the action of the return spring (28), now with reduced force owing to the only residual effective annular surface, which corresponds to a bend in the characteristic curve of the slide travel/engine speed function. 

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L36: Entry 3 of 12

File: EPAB

May 13, 1987

PUB-NO: EP000221386A2

DOCUMENT-IDENTIFIER: EP 221386 A2

TITLE: Method and device for adapting the mixture control in an internal-combustion engine.

PUBN-DATE: May 13, 1987

INVENTOR-INFORMATION:

NAME

COUNTRY

JAUTELAT, RUDIGER

KOHLER, ROLF

PLAPP, GUNTHER DIPL-ING

ZICHNER, BOTHO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

BOSCH GMBH ROBERT

DE

APPL-NO: EP86113946

APPL-DATE: October 8, 1986

PRIORITY-DATA: DE03539395A (November 7, 1985)

INT-CL (IPC): F02D 41/14

EUR-CL (EPC): F02D041/14; F02D041/24

ABSTRACT:

In this method, in which a performance graph spread out by operating variables (angle DK of throttle-valve position, rotational speed N) of the internal combustion engine gives an anticipatory- control variable which is decisive for the fuel quantity to be fed or injected and is influenced by at least one adaptively changeable correction variable (structural adaptation, global adaptation), it is proposed to limit the correction of the structural factor adaptation to a predetermined value per FSA learning cycle, and at the same time to establish a correction adaptation of the global factor (FGA) at a progressive grading many times finer. Furthermore, the adaptation (structural factor FSA and/or global factor FGA) is dynamically adjusted to the actual characteristic operating quantity (λ) by the latter running in the grid of the increments of the regulating variable (Xr) of the lambda regulator (11).

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L21: Entry 2 of 5

File: USPT

Nov 11, 2003

DOCUMENT-IDENTIFIER: US 6644272 B2

TITLE: Diesel engine

102(e)

Detailed Description Text (85):

A start signal indicating engine start, a rotation speed signal indicating engine speed and a fuel supply signal (also called as fuel injection quantity signal) indicating fuel supply to the cylinder are inputted to the engine controller 60. Incidentally, though not shown, a starting switch, an engine speed sensor for detecting engine speed and a fuel supply sensor for detecting fuel supply amount to the cylinder by detecting rack position of fuel injection pump etc. are electrically connected to the engine controller 60 in order to obtain the input signals.

*"modify fuel supply"*Detailed Description Text (220):

The load condition of the diesel engine may be detected not only by detecting the load in accordance with the fuel injection into the cylinder, but by detecting the load with a torque meter provided to an engine shaft such as the crankshaft, by detecting the load according to the output of the power generator driven by the diesel engine or by detecting the load according to the open degree of the accelerator of vehicle driven by the diesel engine.

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L21: Entry 1 of 5

File: USPT

Mar 23, 2004

DOCUMENT-IDENTIFIER: US 6708507 B1

TITLE: Temperature control apparatus and method of determining malfunction

Drawing Description Text (5):

FIG. 1 is a side view, partially in section, of a vehicle having a temperature control apparatus and a drive unit embodying aspects of the present invention.

Detailed Description Text (2):

FIG. 1 illustrates a temperature control apparatus 10, such as, for example, a mobile refrigeration unit, embodying aspects of the present invention. The temperature control apparatus 10 is coupled to a vehicle V and is in thermal communication with a load space 12 of the vehicle V. In the illustrated construction, the vehicle V is a trailer coupled to a truck and the temperature control apparatus 10 is coupled to a bulkhead or wall 14. However, one having ordinary skill in the art will appreciate that the temperature control apparatus 10 could also or alternately be supported in a truck and trailer combination, a railcar, an automobile, a van, a shipping container, and the like.

Detailed Description Text (20):

In act 114, ambient sensor 102 records the temperature of the ambient air ("T.sub.AMB "). In some constructions, the ambient sensor 102 is shielded to reduce the effects of wind caused by vehicle movement. Also, condenser sensor 116 (see FIG. 2) records the temperature ("T.sub.COND ") of air blown across the condenser coil 40 and sensor 19 records the rotational speed ("Comp.sub.SPEED ") of the compressor drive shaft 17.

Detailed Description Text (24):

In act 124, the controller 100 calculates the actual output power ("HP.sub.ACT ") of the engine 22 by comparing the fuel consumption rate Fuel.sub.RATE with empirical data for properly functioning temperature control apparatuses. In act 126, the controller 100 compares the expected output power HP.sub.EXP and the actual output power HP.sub.ACT to determine whether the actual output power HP.sub.ACT is within an acceptable range (e.g., $\pm 20\%$ of expected output power HP.sub.EXP). The acceptable range is selected to accommodate changes in pressure of the refrigerant and the fuel that occur as the vehicle V moves the temperature control apparatus 10 to locations having different altitudes and corresponding atmospheric pressure values.

CLAIMS:

1. A temperature control apparatus comprising: a refrigeration circuit extending between a compressor, a condenser, and an evaporator; a drive unit drivingly coupled to the compressor, the drive unit having a fuel supply, a plurality of cylinders, a fuel line fluidly connecting the fuel supply and the plurality of cylinders, and a rack positioned along the fuel line, the rack being moveable to control a flow of fuel between the fuel supply and at least one of the plurality of cylinders, the rack having a position sensor arranged to record a rack position; and a controller in communication with the compressor and the position sensor, the controller being operable to identify malfunctions of the temperature control apparatus based on the rack position.